



# **TROPICAL CYCLONE CONFERENCE**

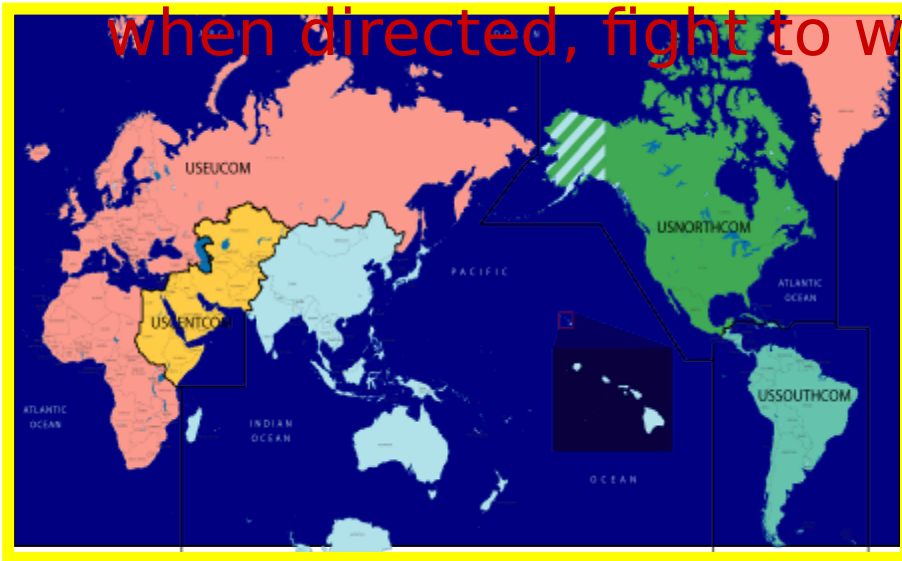
**29 APR 2009**

**CAPT Bill Schulz**  
**US PACIFIC COMMAND**



## PACOM Mission and Organization Commander's Intent:

- U.S. Pacific Command protects the homeland in concert with other U.S. government agencies, and promotes security and peaceful development in the Asia-Pacific with regional partners by deterring aggression, advancing regional cooperative security, responding to crises; and when directed, fight to win.





# PACOM Cyclone-Impacted Operations

- On going ops supporting Philippines
  - Operation ENDURING FREEDOM
- Presence
  - Forward basing of USAF fighters and bombers
  - WESTPAC ship deployments
  - Forces in Korea, Okinawa
- Reconnaissance
  - Cloud cover
  - Sea states
  - Long lead time to reposition some assets
- Transportation
  - C-17 Air bridge, Maritime Logistics

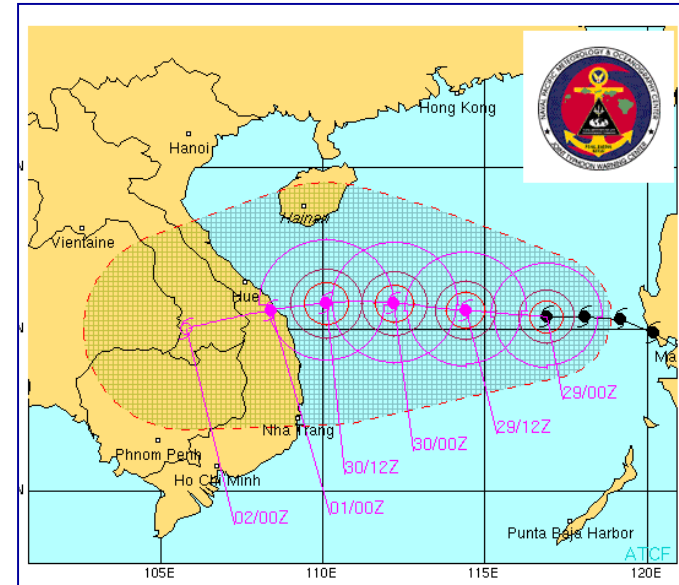


# PACOM METOC Operations:

## TC Forecasting as a Theater Security Cooperation

### tool

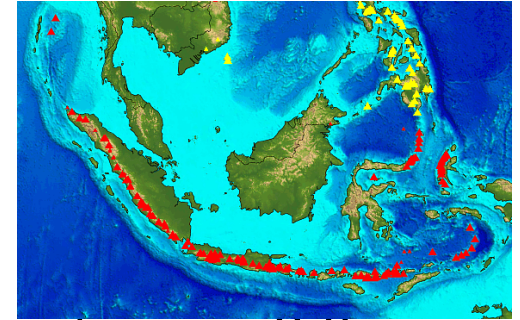
- **India**
  - India Air Force METOC exchange visit
  - Consultations with JTWC
- **Indonesia**
  - NAVOCEANO ship visits
  - Hydrographic cooperation
- **Philippines**
  - Surveys
  - METOC exchanges
- **Vietnam**
  - METOC visits
  - Direct emails of JTWC warnings
  - NAVOCEANO Ship Visit
- **World Meteorological Organization**
  - JTWC reps at conferences
  - Pacific Area Regional Campaign  
(Tropical Cyclone Research Sep 08)





## PACOM METOC Issues

- Natural Disasters
  - Typhoons
  - Floods due to monsoon rains
  - Severe winters/food shortages
  - Earthquakes (One 7.0 or better every three weeks, one 8.0 every year on average)
  - Volcanoes (100+ active in AOR, ash threatens populations, air routes, sometimes military air transport)
- Coordination with FNMOC, JTWC and PTWC on warning dissemination
- Coordination with Dept. of State, FEMA, Dept. of Homeland Security on response to disasters
- Situation Assessment Group/Operational Planning Teams
  - CRISIS PLANNING





# TIME

## **Accurate, long range forecast essential to efficient planning**

- Event timeline
  - Disaster happens or impending
  - Affected nation requests aid via US Embassy (0-2 days)
  - State Department vettes request (0 -3 days)
  - If yes: DoS or DoD? (0 - 1 day)
  - DoD: PACOM? TRANSCOM? (0-1 day)
  - Get it there yesterday (up to 7 days may have already passed)
- COCOM Planning
  - Assessment, COA development, Orders/RFFs
  - Do we have confidence to begin positioning?
- Deploy forces
  - Sasebo to Bangladesh by sea: 11 days
  - C17 Air bridge, Hickam to Philippines: 10 hours





# ACCURACY

## Scoping the Problem

- Which country?
- Which airfields/ ports will be close but unaffected?
  - Staging an extra 25 miles out burns significant hours and fuel
  - Navigable waterways or harbor facilities impacted?
- Effects
  - Rain
    - How much? Flooding? Mudslides? Areal extent?
  - Wind
    - When do crosswinds fall below 25 kts? 15 kts?
  - Storm surge
    - Areal extent
    - Depth

These answers govern the amount and type of relief assets needed, or the type of assets that need to



# HA/DR and Logistic Ops Strategic Message



*C-17 HA/DR mission to China, Jan '08*

Effective US military tropical cyclone forecasting promotes

- Operational efficiency
- Safety
- Confidence among our partners
- Professional impression/warfighting competence



# Proposed Focus Areas

- Cyclone structure
  - *Planners still assume the symmetrical storm*
- Rainfall amounts
- Storm surge
  - *PACOM J3 memo to Joint Staff (Feb 09)*
- Position accuracy

**Your participation in the working sessions on Friday is critical!**

Desired outcome:

Statement from MGPACOM to CNMOC/AFWA/Research Community  
calling for new operational forecast targets and parameters



## **PACOM METOC**

- Questions/Action Items? Contact

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